

CLAIMS

1. A method for automatically setting a network, comprising the steps of:

5 receiving an event message from a device connected to a network;

requesting routing tables to all devices connected to the network except for the device; and

10 adding an IP address of the device to the routing tables of the devices.

2. The method of claim 1, further comprising, when two or more IP addresses have been registered in IP address information of the event message, a step for confirming whether unicast and multicast
15 forwarding functions are supported through the event message.

3. The method of claim 2, wherein, when the unicast and multicast forwarding functions are supported, the step for requesting the routing tables requests the routing tables to all devices except for the
20 device transmitting the event message.

4. The method of claim 1, wherein, when two or more IP addresses have been registered in the IP address information of the event message, the step for adding the IP address of the device adds
25 the IP address of the device to the routing tables.

5 5. The method of claim 1, wherein, when the IP address of the device has not been registered in the routing tables, the step for adding the IP address of the device adds the IP address of the device to the routing tables.

6. The method of claim 1, wherein the device and the devices are connected to a UPnP-based network consisting of heterogeneous IP segments.

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7. The method of claim 1, wherein the event message is an IP network management event message.

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8. The method of claim 1, further comprising, when one IP address has been registered in the IP address information of the event message from the device, a step for deleting the IP address of the device added to the routing tables.

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9. A method for automatically setting a network, comprising the steps of:

receiving an event message from a UPnP device connected to a UPnP-based network;

requesting routing tables to all UPnP devices connected to the network except for the UPnP device; and

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adding an IP address of the UPnP device to the routing

tables of the UPnP devices, so that the UPnP device can be operated as a gateway.

10. The method of claim 9, wherein the event message is an IP
5 network management event message.

11. A method for automatically setting a network, comprising the steps of:

receiving an event message from a UPnP device discovered
10 among UPnP devices connected to a UPnP-based network system;

requesting routing tables to all UPnP devices except for the discovered UPnP device; and

when two or more IP addresses have been registered in IP address information of the event message, adding the IP address of the
15 discovered UPnP device to the routing tables, so that the discovered UPnP device can be operated as a gateway,

wherein the event message is an IP network management event message.

20 12. In a UPnP-based home network system having two or more UPnP devices and one or more control points, a method for automatically setting a network, comprising the steps of:

receiving an event message from a discovered UPnP device;

when two or more IP addresses have been registered in IP
25 address information of the event message, requesting routing tables

to all UPnP devices except for the discovered UPnP device; and
adding the IP address of the discovered UPnP device to the
routing tables.

5 13. The method of claim 12, further comprising, when one IP
address has been registered in IP address information of the event
message, a step for requesting the routing tables to all UPnP devices
except for the discovered UPnP device and deleting the IP address of
the discovered UPnP device from the routing tables.

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14. The method of claim 12, further comprising, when the IP
address of the discovered UPnP device is added to the routing tables
and the discovered UPnP device is operated as a gateway, a step for
invoking unicast/multicast forwarding from the discovered UPnP device.

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15. The method of claim 14, further comprising, when the
unicast/multicast forwarding is not invoked, a step for receiving the
event message again.

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16. The method of claim 14, further comprising, when the
discovered UPnP device is not operated as the gateway, a step for
requesting the routing tables to all UPnP devices except for the UPnP
device and deleting the IP address of the UPnP device from the routing
tables.

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17. The method of claim 12, wherein the IP address of the discovered UPnP device is added to or deleted from the routing tables, when the control point invokes UPnP service actions.

5 18. A method for automatically setting a network, comprising the steps of:

receiving an event message from any one of devices connected to a network consisting of heterogeneous IP segments;

requesting routing tables to all devices connected to the
10 network except for the device transmitting the event message; and

adding an IP address of the device to the routing tables of the devices.

19. The method of claim 18, wherein the network is a
15 UPnP-based network.

20. The method of claim 18, wherein the event message is an IP network management event message.

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